Ontario

Modular Training Standards

Operate Mine Hoist - Friction or Drum

Underground Soft Rock Miner
Program #770130
Shaft Services Specialties Group
Module: U074

Ministry of Training,
Colleges and Universities

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Printing date: January 2007

This document is the property of the trainee/ employee named inside and represents the official record of his/her training.

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TRAINING UNIT

TRAINING UNIT	TITLE	
U074	Operate Mine Hoist – Friction or Drum	6-9

AREA OF COMPETENCY

COMPETENCY ANALYSIS PROFILE
OPERATE MINE HOIST-FRICTION OR DRUM
ON-THE-JOB TRAINING STANDARDS SKILLS

OPERATE MINE HOIST-FRICTION OR DRUM **074.0**	Identify and respond to workplace hazards 074.01	Maintain hoist daily log book 074.02	Perform pre-operational checks on hoist 074.03	Inspect layout of hoist, shaft and auxiliary equipment 074.04	Start up hoist 074.05
	Conduct operational checks on hoist 074.06	Transport load 074.07	Perform special hoisting techniques 074.08	Respond to emergency situations 074.09	Shut down hoist 074.10

PREFACE

This training document was developed by the Program Development and Standards Unit of the Ministry of Training, Colleges and Universities, in consultation with representatives from the Underground Soft Rock Mining industry. These Training Standards are intended to be used by trainee, trainers/instructors and companies as a "blueprint" for training or as a prerequisite for government accreditation/certification. While this training document is intended as guidelines for training, all issues might not apply in all operations.

A Basic Underground Soft Rock Miner (entry level) is a worker who has achieved accreditation in the entire Common Core Program #770130. The Mining Tripartite Committee (MTC) recommends that the employer must provide training in the entire common core for the Basic Underground Soft Rock Miner Training Program, to the worker, within the first year of employment. This 1 year requirement is legislated under the Occupational Health and Safety Act (OHSA) – R.R.O. 1990 Regulations 854, 11.3.

The first three modules of Program #770130 – U5510, U5511 and U3126 are prerequisites to all other modules for the program. They must be completed before any other modules can be done and before the employee can be permitted to work underground.

Prerequisite Common Core modules related to a specialty module must be taken before training in the specialty module commences. *NOTE: For Program #770130 the common core module U5512, Operate Utility Vehicle (Personnel Carriers/Service Vehicles) is a prerequisite to any specialty module that involves operating mobile equipment.* Employers have a responsibility to train workers for the work to be done.

Under the OHSA - R.R.O. 1990 Regulation 854, 11.3 there is an allowance for the recognition of equivalent training from other jurisdictions. In addition, the MTC has conducted a comparison of Ontario's Soft Rock Miner and Hard Rock Miner programs, #770130 and #770110 and found certain corresponding modules to be equivalent. Employers should contact their Local Apprenticeship Office for details about the requirements associated with these equivalencies.

New trainees or experienced miners must obtain accreditation in the same way. Each must demonstrate the skills specified in each Performance Objective to the described minimal acceptable standard as prescribed in each module. These demonstrations must be administered in an operating mine by a trainer designated by the company who shall follow the Performance Demonstration Guidelines approved by the Mining Tripartite Committee.

The care and maintenance of this book is the joint responsibility of the trainee and the employer. The Training Standards were developed specifically for documenting the trainee's acquisition of skills.

PREFACE - Cont`d

Areas of the Basic Underground Soft Rock Common Core including scaling, lock out and tag and handling blasting agents may infringe on some specialty modules for purposes of safety and technological changes. However, accreditation in these areas of the Common Core is not intended to replace accreditation in the specialty modules.

Throughout the document the term "including" is often used. "Including" means: one or more of the items listed, but not limited to those items included in the list.

NOTICE/DECLARATION FOR COLLECTION OF PERSONAL INFORMATION

1. This information is collected under the authority of the Order-In-Council Number 701/85.

2. The information is collected for the purpose of administering this modular training program within the Province of Ontario.

3. Questions regarding collection and use of this information may be directed to:

Director of Apprenticeship
Workplace Training Branch
Ministry of Training, Colleges and Universities
900 Bay Street
17th Floor, Mowat Block
Toronto, Ontario
M7A 1L2
(416) 326-5605

IMPORTANT DIRECTIONS TO TRAINERS

Trainers instructing workers in the specialty modules for Program #770130 must meet the Trainer Qualification and Criteria Guidelines for Program #770130. They must be accredited in the Basic Common Core Underground Soft Rock program #770130 and the specialty module they will be instructing. Contact your local apprenticeship office for a copy of the Trainer Qualification and Criteria Guidelines.

The Training Standards identify skills required for this occupation and its related training program.

These Training Standards have been written in concise statements which describe how well a trainee must perform each skill in order to become competent.

In using these Training Standards, trainers will be able to ensure that the trainee is developing skills detailed for the occupation.

Trainers and trainees are required to sign off and date the skills following each successful acquisition.

Employers participating in this training program will be designated as the Signing Authority and are required to attest to successful achievement in the space provided at the end of each unit.

IMPORTANT DIRECTIONS TO THE TRAINEE

Trainee

1. It is the responsibility of the trainee to inform the local Apprenticeship Client Services office regarding the following changes:

   - change of trainee name or address; and
   - transfer to a new employer.

2. Training Reports must be signed for modular trainees by a Ministry of Training, Colleges and Universities designated Signing Authority and forwarded to a local Apprenticeship Client Services office.

3. At the completion of training, the Trainee Completion Form must be completed and signed off by the Signing Authority and submitted to local Apprenticeship Client Services office.

UNDERGROUND SOFT ROCK MINING SPECIALITY MODULES LISTING BY GROUPS

GROUP 1 PRODUCTION (9)

U3141 Operate Over/Under Cutter
U3142 Operate Mechanized Jumbo Drill
U3143 Perform Loading and Blasting
U3144 Perform Mechanical and Manual Scaling
U5526 Operate Mechanized Rock Bolter
U5527 Operate Pneumatic Rock Bolter Equipment
U5528 Operate Continuous Miner Equipment
U5529 Operate Gathering Arm Loader
U5530 Operate Degassing Drill

GROUP 2 CONVEYANCES AND SERVICES (4)

U3146 Operate Haulage-Track
U3148 Operate Feeder Breaker/Crusher
U3151 Perform Underground Construction
U5535 Operate Conveyor

GROUP 3 SHAFT SERVICES (4)

U074 Operate Mine Hoist – Friction or Drum
U3147 Perform Shaft Maintenance
U5540 Operate Skip
U5541 Operate Cage

TRAINEE COMPLETION FORM

Trainee Name: _____
Print

_____
Signature

Social Insurance Number: _____

Training Units when completed should be signed off by the Trainer/Signing Authority Employer on the following page and presented with this completion form to your local Apprenticeship Client Services office. Any supporting documentation should also be attached.

Employer Name: _____

Address: _____

Telephone: _____

Signing Authority: _____
Signature

TRAINING UNIT COMPLETION FORM

TRAINING UNIT	TITLE	SIGNING AUTHORITY
U074	Operate Mine Hoist - Friction or Drum	_____

U074.0 OPERATE MINE HOIST - FRICTION OR DRUM

GENERAL PERFORMANCE OBJECTIVE

Operate mine hoist - friction or drum, by identifying and responding to workplace hazards; maintaining hoist daily log book; performing pre-operational checks on hoist; inspecting layout of hoist, shaft and auxiliary equipment; starting up hoist; conducting operational checks on hoist; transporting load; performing special hoisting techniques; responding to emergency situations; and shutting down hoist according to government legislation, company standards and manufacturer specifications.

PERFORMANCE OBJECTIVES

Trainer's Name (Print) _____ Trainee's Name (Print) _____

SKILLS

074.01 Identify and respond to workplace hazards, including: ground conditions, ventilation, and housekeeping, by isolating area; wearing required retro-reflective outerwear; repairing and/or reporting deficiencies according to government legislation, company standards and manufacturer specifications.

Date Completed	Trainer's Signature	Trainee's Signature
_____	_____	_____

074.02 Maintain hoist daily log book, by reading and updating information; and signing entries, including: tests, special instructions, unusual circumstances, trial trips, inadvertent stoppages, and start and finish time according to government legislation, company standards and manufacturer specifications.

Date Completed	Trainer's Signature	Trainee's Signature
_____	_____	_____

U074.0 **OPERATE MINE HOIST - FRICTION OR DRUM** - cont'd

074.03 Perform pre-operational checks on hoist, by inspecting principle components and auxiliary equipment, including: power supply, drive unit, hoist wheel, tail, guide ropes, drums, hoist ropes, lubrication systems, brake systems, clutches, pumps, compressors, hoist controls, controllers deflectors, safety devices, slack rope device selector switches, depth indicator, rope slip devices monitor and alarm screens; performing walk-around checks for visual defects; inspecting slack rope devices; visually inspecting fire extinguishers and fire suppression systems and nozzles; ensuring guards are in place and secure; inspecting breathing apparatus; inspecting chart recorder; checking for fluid leaks; inspecting lighting, temperature, mirrors, cameras, monitors, gauges and console; inspecting communication and warning systems; locking out and tagging; and repairing and/or reporting deficiencies according to government legislation, company standards and manufacturer specifications.

Date Completed	Trainer's Signature	Trainee's Signature
_____	_____	_____

074.04 Inspect layout of hoist, shaft and auxiliary equipment, including; gauges, compartments, levels, shaft bottom, dump, loading pocket and hoisting elevations, permanent and temporary obstructions, including; shaft collar doors, shaft inspection hoods, shaft bottom arresters, spill pocket doors, skip, cage, cross head, winches, head frame and sheave wheels; locking out and tagging; and repairing and/or reporting deficiencies according to government legislation, company standards and manufacturer specifications.

Date Completed	Trainer's Signature	Trainee's Signature
_____	_____	_____

U074.0 **OPERATE MINE HOIST - FRICTION OR DRUM** - cont'd

074.05 Start up hoist, by activating power source; activating related systems in required sequence; selecting mode of operation, including: manual, semi-automatic and automatic; locking out and tagging; and repairing and/or reporting deficiencies according to government legislation, company standards and manufacturer specifications.

Date Completed	Trainer's Signature	Trainee's Signature
_____	_____	_____

074.06 Conduct operational checks on hoist, by testing brakes; performing trial runs; testing over-speed and approaching bell; checking drum over winds and under winds; testing safety devices, including: back out device, man safety device and lockout device; inspecting interlocks and clutches; testing track limits; conducting daily/weekly/monthly tests; monitoring ampmeter; testing hoist signals and bypass switches; locking out and tagging; and repairing and/or reporting deficiencies according to government legislation, company standards and manufacturer specifications.

Date Completed	Trainer's Signature	Trainee's Signature
_____	_____	_____

074.07 Transport load, by hoisting and lowering personnel, supplies, equipment and/or muck; operating in required mode and at required speed; applying brakes; using signals, warning lights and bells; observing waiting periods; spotting shaft conveyances; monitoring ampmeter; applying hoist signals clearly and distinctly; responding to audio and/or visual communication systems, including: telephone, radio and hoist indicator lights; ensuring required ventilation; noting direction of ventilation flow and position of ventilation/fire doors; locking out and tagging; and repairing and/or reporting deficiencies according to government legislation, company standards and manufacturer specifications.

Date Completed	Trainer's Signature	Trainee's Signature
_____	_____	_____

U074.0 **OPERATE MINE HOIST - FRICTION OR DRUM** - cont'd

074.08 Perform special hoisting techniques, including: cage chairing, spotting shaft conveyances, slinging load, hoisting personnel in skip, setting new marks, and skipping muck, by inspecting and greasing rope; cutting and changing rope; measuring rope; conducting electromagnetic testing; inspecting shaft; responding to blasting signals; hoisting/lowering a single line (drum); responding to shaft deflectors and obstructions; performing balanced hoisting, balancing and drop testing; locking out and tagging; and repairing and/or reporting deficiencies according to government legislation, company standards and manufacturer specifications.

Date Completed	Trainer's Signature	Trainer's Signature
_____	_____	_____

074.09 Respond to emergency situations, including: fire, personnel injuries/accidents, inadvertent stops, stray bells, dogging, high water in shaft bottom, mine evacuation and shaft, hoist, or conveyance equipment incidents/accidents, by following emergency procedures; using personal protective equipment, including: breathing apparatus; completing reports; locking out and tagging; and reporting and/or logging incident according to government legislation, company standards and manufacturer specifications.

Date Completed	Trainer's Signature	Trainee's Signature
_____	_____	_____

074.10 Shut down hoist, by releasing conveyances; deactivating related systems; deactivating power supply; completing log entries; locking out and tagging; and repairing and/or reporting deficiencies according to government legislation, company standards and manufacturer specifications.

Date Completed	Trainer's Signature	Trainee's Signature
_____	_____	_____

	Employer's Name	Employer's Signature
	_____	_____